ASARCO

Linda Jacobson
RCRA Project Manager
US EPA Region VIII
8ENF-T
1595 Wynkoop Street
Denver, Colorado 80202-1129

May 14, 2007

SENT BY FEDERAL EXPRESS

Dear Ms. Jacobson:

Per your May 11, 2007 Corrective Action Assessment Inspection request, please find enclosed the Waste Profile Sheet for the Asarco East Helena Plant High Cadmium Baghouse Dust.

Sincerely,

Jon Nickel

Enclosure

A104847

LES

☐ Standard Approval ☒ RUSH Approval (extra charge)

Waste Profile Sheet

FOR LES USE ONLY Exhibit A to	Contract date	Sample reference #	PO #	Sales Representative

IMPORTANT INFORMATION NEEDED BEFORE COMPLETING THIS FORM:

1. All boxes MUST be completed unless otherwise indicated.
2. Incomplete Profiles will result in unnecessary delays. Please supply all required information. If you have questions, please call your facility customer service representative or LES sales representative.
3. When a check-off box is used on this form, please check the box if the item describes the waste or is found in the waste. Leaving the box blank indicates that the item does not apply to the waste stream.

I. Generator Information

Generator Company Name: ASARCO INCORPORATED

Generator Facility Address:
100 Smelter Road
East Helena, Mt. 59635

Generator Mailing Address:
P. O. Box 1230
East Helena, Mt. 59635

Invoice Directions: Jon C. Nickel

US EPA ID: M T D 0 0 6 2 3 0 3 4 6

State Generator ID:

Facility Contact/Tile (generator): Jon C. Nickel / Environmental Manager

Phone: (406)227-7191 Fax: (406)227-4008

Technical Contact/Tile (generator: Same as Above

Phone: Fax:

Broker, Contractor, Invoice Contact/Title: Same as Above

Phone: Fax:

If specific treatment is desired please specify:

Standard Industry Code (SIC): 3339

II. Waste Generation Information

Waste name: High Cadmium Baghouse Dust

Describe process producing waste (attach additional sheet if necessary): Baghouse dust generated from primary metal facility

Estimated rate of waste generation	Units	Frequency
500	☐ Drums ☐ Gallons ☐ Pounds ☒ Tons ☐ Yard	☐ Monthly ☐ Quarterly ☒ Yearly ☐ One time only

Is the waste generated from a... ☐ RCRA corrective action ☐ CERCLA site ☐ foreign source ☒ none of the preceding

Is the waste generated by a chemical manufacturing plant, coke by-product recovery plant or a petroleum refinery ☐ Yes ☒ No

Does this waste contain benzene subject to the control requirements of 40 CFR Part 61 Subpart FF (NESHAP)? ☐ Yes ☒ No
If "Yes" please specify the benzene concentration in section III.

III. Waste Constituents, Characteristics and Properties

Physical state
☒ Solid ☐ Liquid ☐ Powder
Contains free liquids? ☐ yes ☒ no If yes, enter volume _____%

Waste Composition	Range in %
Baghouse Dust	100%
(Analytical Results Attached)	
Total must equal at least 100%	100%

Waste contains: (check only if applicable)

☐ biodegradable sorbents	☐ cyanides-level____	☐ fuming acids
☐ non-biodegradable sorbents	☐ contaminated soil	☐ oxidizers
☐ asbestos	☐ contaminated debris (per EPA	☐ PCBs level _____
	☐ dioxins	☐ strong odor
		☐ sulfides level

Waste properties: (check only if applicable)

☐ autopolymerizable	☐ infectious	☐ reactive
☐ explosive	☐ pyrophoric	☐ shock sensitive
☐ hydrophoric	☐ radioactive	☐ thermally sensitive

Physical properties
Bulk density _____ Color Light brown
Specific gravity 5.0 - 6.0 Flash Point 200°F
Normality _____

pH range
☐ ≤2 ☐ 2.1-5 ☐ 5.1-8 ☒ 8.1-12.4 ☐ ≥12.5 _____ Range

Complete for Thermal Destruction (if applicable)

☐ Heat Value (BTU/lb) _____ to _____	☐ Vapor Pressure (mmHG) _____ @ STP	☐ Total Chlorine _____ to _____%
☐ Water Content (%) _____ to _____	☐ Viscosity _____ @ _____°F	☐ Total Fluoride _____ to _____%
☐ Ash (%) _____ to _____	☐ Total Bromine _____ to _____%	☐ Total Iodine _____ to _____%
		☐ Total Sulfur _____ to _____%

IV. Special Handling, Safety or Other Additional Information

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V. Waste Codes

Applicable EPA listed waste codes (F, K, U or P): TCLP Test Results Attached

State waste codes:

D-Code Characteristic Waste (a blank box indicates N/A)		Actual Range			Actual Range
☐ D001 Ignitable (f.p.<140° F)			☐ D015 Toxaphene	≥0.5 mg/l	
☐ Ignitable liquids ☐ High TOC (>10%) NWW			☐ D016 2, 4-D	≥10.0 mg/l	
☐ Oxidizers			☐ D017 2, 4, 5-TP Silvex	≥1.0 mg/l	
☐ Reactives			☐ D018 Benzene	≥0.5 mg/l	
☐ Compressed Gases			☐ D019 Carbon tetrachloride	≥0.5 mg/l	
☐ D002 Corrosive (ph≤2 or ≥12.5)			☐ D020 Chlordane	≥0.03 mg/l	
☐ Acid liquids ☐ Alkaline liquids			☐ D021 Chlorobenzene	≥100.0 mg/l	
☐ Other corrosive liquids			☐ D022 Chloroform	≥6.0 mg/l	
☐ D003 Reactive			☐ D023 0-Cresol	≥200.0 mg/l	
☐ Reactive sulfides ☐ Explosives			☐ D024 m-Cresol	≥200.0 mg/l	
☐ Water reactives ☐ Reactive cyanides			☐ D025 p-Cresol	≥200.0 mg/l	
☐ Other reactives			☐ D026 Cresol	≥200.0 mg/l	
☐ D004 Arsenic	≥5.0 mg/l		☐ D027 1, 4-Dichlorobenzene	≥7.5 mg/l	
☐ D005 Barium	≥100.0 mg/l		☐ D028 1, 2-Dichloroethane	≥0.5 mg/l	
☒ D006 Cadmium	≥1.0 mg/l	< 10000 mg/l	☐ D029 1, 1-Dichloroethylene	≥0.7 mg/l	
☐ Cadmium batteries			☐ D030 2, 4-Dinitrotoluene	≥0.13 mg/l	
☐ D007 Chromium	≥5.0 mg/l		☐ D031 Heptachlor (and its epoxide)	≥0.008 mg/l	
☒ D008 Lead	≥5.0 mg/l	< 200 mg/l	☐ D032 Hexachlorobenzene	≥0.13 mg/l	
☐ Lead acid batteries			☐ D033 Hexachlorobutadiene	≥0.5 mg/l	
☐ D009 Mercury	≥0.2 mg/l		☐ D034 Hexachloroethane	≥3.0 mg/l	
☐ High mercury-organics (>260 mg/kg)			☐ D035 Methyl ethyl ketone	≥200.0 mg/l	
☐ High mercury-inorganics (>260 mg/kg)			☐ D036 Nitrobenzene	≥2.0 mg/l	
☐ Incin. residues			☐ D037 Pentachlorophenol	≥100.0 mg/l	
☐ Low mercury (<260 mg/kg)			☐ D038 Pyridine	≥5.0 mg/l	
☒ D010 Selenium	≥1.0 mg/l	< 5 mg/l	☐ D039 Tetrachloroethylene	≥0.7 mg/l	
☐ D011 Silver	≥5.0 mg/l		☐ D040 Trichloroethylene	≥0.5 mg/l	
☐ D012 Endrin	≥0.02 mg/l		☐ D041 2, 4, 5-Trichlorophenol	≥400.0 mg/l	
☐ D013 Lindane	≥0.4 mg/l		☐ D042 2, 4, 6-Trichlorophenol	≥2.0 mg/l	
☐ D014 Methoxychlor	≥10.0 mg/l		☐ D043 Vinyl chloride	≥0.2 mg/l	

VI. Land Disposal Restriction Standards

Federal Land Disposal Restriction standards: (check one)

- ☐ does not meet any applicable standards
- ☐ treated to meet all applicable standards
- ☐ meets all applicable standards without treatment
- ☐ needs to be treated to meet certain treatment standards
- ☒ no federally-mandated treatment standards apply

- ☐ HOC > 1000 mg/l
- ☐ thallium > 130 mg/l
- ☐ nickel > 134 mg/l

See Attached Land Disposal Restriction Std.

State Land Disposal Restriction standards: (check if applicable)

- ☐ does not meet any applicable standards
- ☐ treated to meet all applicable standards
- ☐ meets all applicable standards without treatment
- ☐ needs to be treated to meet certain treatment standards
- ☒ no state-mandated treatment standards apply

D001-D002 Wastes Potentially Regulated Under 40 CFR § 268.37

Contains any constituents for which a treatment standard has been established in relation to F039 (multi-source leachate): ☐ yes ☒ no ☐ not sure

If yes, identify each constituent _____

This information is based on (attach additional sheets if necessary):

☐ analysis-describe _____

☐ knowledge-describe _____

Non-Regulated Waste:
☒ Non-RCRA Regulated ☐ Conditionally Exempt Small Quantity Generator ☐ Household Hazardous ☐ 100-1000 kg/mo generator

LDR Treatability Group
☐ Wastewater ☐ Non Wastewater

VII. State of California Regulated Metals (use this section only if applicable-Indicate actual range in PPM)

	Actual Range		Actual Range		Actual Range
☐ Antimony (Sb)		☐ Copper (Cu)		☐ Thallium (Ti)	
☐ Beryllium (Be)		☐ Molybdenum (Mo)		☐ Vanadium (V)	
☐ Cobalt (Co)		☐ Nickel (Ni)		☐ Zinc (Zn)	

VIII. Shipping Information

Proper DOT Shipping: RQ, Hazardous Waste Solid, N.O.S., (D006, D008, D010)

DOT Hazard Class	UN/NA number	Packing Group	Reportable Quantity
9	NA 3077	III	10 lbs

Container Type: ☐ Drum ☒ Bulk Solid ☐ Bulk Liquid ☐ Other:

Grassy Mountain Customers only
Is this waste a combustion residue? ☐ Yes ☐ No

IX. Certification Statement

I certify that the information presented on this form and all attached forms is accurate and that all known or suspected hazards have been disclosed. The Waste Stream has been correctly characterized according to 40 CFR 262.11 and all applicable state regulations. A Representative Sample or lab pack inventory (if required) of this Waste Stream has been provided to LES. I am authorized by the above listed company or agency to make this certification. This waste does not contain any biological pathogenic and/or etiological agents.

Jon C. Nickel — Signature

Jon C. Nickel — Printed Name

January 14, 1998 — Date

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e Codes

le EPA listed waste codes (F, K, U or P)	TCLP Test Results Attached	State waste codes

Characteristic Waste (a blank box indicates N/A)		Actual Range
Ignitable (f.p.<140° F)		
itable liquids ☐ High TOC (>10%) NWW		
idizers		
actives		
mpressed Gases		
Corrosive (ph≤2 or ≥12.5)		
d liquids ☐ Alkaline liquids		
ier corrosive liquids		
Reactive		
active sulfides ☐ Explosives		
ter reactives ☐ Reactive cyanides		
ier reactives		
Arsenic	≥5.0 mg/l	
Barium	≥100.0 mg/l	
Cadmium	≥1.0 mg/l	< 10000 mg/l
dmium batteries		
Chromium	≥5.0 mg/l	
Lead	≥5.0 mg/l	< 200 mg/l
id acid batteries		
Mercury	≥0.2 mg/l	
h mercury-organics (>260 mg/kg)		
h mercury-inorganics (>260 mg/kg)		
in. residues		
w mercury (<260 mg/kg)		
Selenium	≥1.0 mg/l	< 5 mg/l
Silver	≥5.0 mg/l	
Endrin	≥0.02 mg/l	
Lindane	≥0.4 mg/l	
Methoxychlor	≥10.0 mg/l	

			Actual Range
☐ D015	Toxaphene	≥0.5 mg/l	
☐ D016	2, 4-D	≥10.0 mg/l	
☐ D017	2, 4, 5-TP Silvex	≥1.0 mg/l	
☐ D018	Benzene	≥0.5 mg/l	
☐ D019	*Carbon tetrachloride*	≥0.5 mg/l	
☐ D020	Chlordane	≥0.03 mg/l	
☐ D021	Chlorobenzene	≥100.0 mg/l	
☐ D022	*Chloroform*	≥6.0 mg/l	
☐ D023	0-Cresol	≥200.0 mg/l	
☐ D024	m-Cresol	≥200.0 mg/l	
☐ D025	p-Cresol	≥200.0 mg/l	
☐ D026	Cresol	≥200.0 mg/l	
☐ D027	1, 4-Dichlorobenzene	≥7.5 mg/l	
☐ D028	1, 2-Dichloroethane	≥0.5 mg/l	
☐ D029	1, 1-Dichloroethylene	≥0.7 mg/l	
☐ D030	2, 4-Dinitrotoluene	≥0.13 mg/l	
☐ D031	Heptachlor (and its epoxide)	≥0.008 mg/l	
☐ D032	Hexachlorobenzene	≥0.13 mg/l	
☐ D033	Hexachlorobutadiene	≥0.5 mg/l	
☐ D034	Hexachloroethane	≥3.0 mg/l	
☐ D035	Methyl ethyl ketone	≥200.0 mg/l	
☐ D036	Nitrobenzene	≥2.0 mg/l	
☐ D037	Pentachlorophenol	≥100.0 mg/l	
☐ D038	Pyridine	≥5.0 mg/l	
☐ D039	Tetrachloroethylene	≥0.7 mg/l	
☐ D040	*Trichloroethylene*	≥0.5 mg/l	
☐ D041	2, 4, 5-Trichlorophenol	≥400.0 mg/l	
☐ D042	2, 4, 6-Trichlorophenol	≥2.0 mg/l	
☐ D043	Vinyl chloride	≥0.2 mg/l	

d Disposal Restriction Standards

Land Disposal Restriction standards: (check one)
- not meet any applicable standards
- d to meet all applicable standards
- all applicable standards without treatment
- to be treated to meet certain treatment standards
- lerally-mandated treatment standards apply

☐ HOC > 1000 mg/l
☐ thallium > 130 mg/l
☐ nickel > 134 mg/l
See Attached Land Disposal Restriction Std.

State Land Disposal Restriction standards: (check if applicable)
- ☐ does not meet any applicable standards
- ☐ treated to meet all applicable standards
- ☐ meets all applicable standards without treatment
- ☐ needs to be treated to meet certain treatment standards
- ☒ no state-mandated treatment standards apply

002 Wastes Potentially Regulated Under 40 CFR § 268.37

any constituents for which a treatment standard has been established in relation to F039 (multi-source leachate): ☐ yes ☒ no ☐ not sure

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s Information is based on (attach additional sheets if necessary):

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CRA Regulated ☐ Conditionally Exempt Small Quantity Generator ☐ Household Hazardous ☐ 100-1000 kg/mo generator

LDR Treatability Group
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	Actual Range		Actual Range		Actual Range
ony (Sb)		☐ Copper (Cu)		☐ Thallium (Ti)	
lium (Be)		☐ Molybdenum (Mo)		☐ Vanadium (V)	
lt (Co)		☐ Nickel (Ni)		☐ Zinc (Zn)	

ipping Information

OT Shipping
Hazardous Waste Solid, N.O.S., (D006, D008, D010)

zard Class	UN/NA number	Packing Group	Reportable Quantity
9	NA 3077	III	10 lbs

er Type
☒ Bulk Solid ☐ Bulk Liquid ☐ Other:

Grassy Mountain Customers only
Is this waste a combustion residue? ☐ Yes ☐ No

tification Statement

that the information presented on this form and all attached forms is accurate and that all known or suspected hazards have been disclosed. The Waste has been correctly characterized according to 40 CFR 262.11 and all applicable state regulations. A Representative Sample or lab pack inventory (if required) Waste Stream has been provided to LES. I am authorized by the above listed company or agency to make this certification. This waste does not contain any cal pathogenic and/or etiological agents.

Jon C. Nickel — Printed Name

January 14, 1998 — Date

ure

1997

ORIGINAL

ATTACHMENT

SECTION VI: LAND DISPOSAL RESTRICTION STANDARDS

Land Disposal Restriction Standards do not apply to the high cadmium baghouse dust that Asarco would like to send USPCI. The materials are newly identified wastes uniquely associated with the mineral processing industry for which EPA has not yet established Land Disposal Restrictions. 62 FR 26041. Accordingly, they may be landfilled without treatment.

LAIDLAW ENVIRONMENTAL SERVICES

Determination of Volatile Organic Compound Content (40 CFR 264/265 Subpart CC)

Generator Name: Asarco Incorporated Location: East Helena Plant

Waste Name: High Cadmium Baghouse Dust Waste Codes: (D006, D008, D010)

EPA ID #: MTD006230346 Profile or Approval #: A104847

On December 6, 1994, EPA issued a final rule for Hazardous Waste Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers. The rule, Subpart CC of 40 CFR Part 264/265, has far-reaching impacts and generally becomes effective on June 5, 1995. The effective date for stabilization tanks is December 6, 1995. All hazardous wastes are subject to the rule until determined to have, on average, <500 parts per million by weight (ppmw) Volatile Organic Compounds (VOCs). Determination of VOC concentration is based on the "point of waste origination", defined as the point where the TSD accepts the waste, but VOC determinations must be made for generators in order for them to comply with the rule. Waste determinations may be performed by direct measurement through analysis, knowledge, or both (please refer to page 2 for procedures for conducting waste determinations). Analysis is by Method 25D in 40 CFR Part 60, App. A. An averaging period, not to exceed one year, may be employed. Knowledge-based waste determinations for VOCs are more burdensome than previous rules. Waste determinations must be made initially and updated at least every 12 months.

In order to comply with the requirements of these rules, Laidlaw Environmental Services is requesting all generators to check the statement which is appropriate for the waste material.

☐ *I certify that this waste <u>does not</u> have an average Volatile Organic Compound concentration greater than or equal to 500 ppmw. This certification is supported by:*

- ☐ *Analytical Data;*
- ☒ *Generator Knowledge.*

Information used to support this certification must be documented and provided to the TSD facility accepting the waste.

☐ *I notify that this waste <u>does</u> have an average Volatile Organic Compound concentration (as determined through analytical data, or generator knowledge) greater than 500 ppmw.*

Print Name: Jon C. Nickel Signature: Jon C Nickel

Title: Environmental Manager Date: January 14, 1998

Laidlaw Environmental Services (Lone and Grassy Mountain), Inc.
Grassy Mountain Facility
PO Box 22750, Salt Lake City, UT 84122
Phone: 801-323-8500, Fax: 801-323-8990

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

East Helena

Water and Solid Waste (Project 3119)

Batch No: L973004

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L973004-1		BAGHOUSE DUST	AG	0.026	%	MJF	23-DEC-97		ICP
			AL	0.089	%	MJF	23-DEC-97		ICP
			AS	1.54	%	MJF	23-DEC-97		ICP
			BA	<0.02	%	MJF	23-DEC-97		ICP
			BE	<0.02	%	MJF	23-DEC-97		ICP
			CA	0.59	%	MJF	23-DEC-97		ICP
			CD	17.8	%	MJF	23-DEC-97		ICP
			CO	<0.02	%	MJF	23-DEC-97		ICP
			CR	<0.02	%	MJF	23-DEC-97		ICP
			CU	0.50	%	MJF	23-DEC-97		ICP
			FE	0.14	%	MJF	23-DEC-97		ICP
			K	2.98	%	MJF	23-DEC-97		ICP
			MG	0.30	%	MJF	23-DEC-97		ICP
			MN	<0.02	%	MJF	23-DEC-97		ICP
			MO	<0.02	%	MJF	23-DEC-97		ICP
			NA	1.24	%	MJF	23-DEC-97		ICP
			NI	<0.02	%	MJF	23-DEC-97		ICP
			PB	27.2	%	MJF	23-DEC-97		ICP
			SB	0.13	%	MJF	23-DEC-97		ICP
			SE	0.13	%	MJF	23-DEC-97		ICP
			SIO2	3.77	%	MJF	30-DEC-97		FAA
			V	<0.02	%	MJF	23-DEC-97		ICP
			ZN	14.8	%	MJF	23-DEC-97		ICP

Approved

MAA

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

East Helena

Water and Solid Waste (Project 3119)

Batch No: L973035

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L973035-1		BAGHOUSE DUST	HG	0.0018	%	VPK	22-DEC-97		CETAC
			REAC CN-	<0.1	ppm	RDC	30-DEC-97		9010
			SP.GRAV.	5.1		MJF	30-DEC-97		PYC. 1305

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

East Helena

Water and Solid Waste (Project 3119)

Batch No: L973002

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L973002-1		BAGHOUSE DUST	TCLP	AG	<.05	ppm	MM	29-DEC-97		6010
				AS	<.10	ppm	MM	29-DEC-97		6010
				BA	.18	ppm	MM	29-DEC-97		6010
				CD	5569.	ppm	MM	29-DEC-97		6010
				CR	.24	ppm	MM	29-DEC-97		6010
				HG	<.5	ppb	MM	23-DEC-97		245.1
				PB	150.	ppm	MM	29-DEC-97		6010
				PH	8.2	pH	MM	22-DEC-97		150.1
				SE	2.7	ppm	MM	29-DEC-97		6010

Approved

Reviewer

LABORATORY ANALYTICAL REPORT

X-RAY FLUORESCENCE

To: EAST HELENA **Material:** BAGHOUSE DUST

Date Analyzed: 19-DEC-1997 **Project No.** 3119 **Lab No.** L973003

Compound or	Sample Description Concentration					
Element	DUST		**POSSIBLE COMPOUNDS**	DUST		
S	1-3%		PbBrOH	12%		
Ca	0.7%		PbO	21%		
Cr	0.019%		ZnO	19%		
Sb	0.1%		CdOHCl	26%		
Sn	0.2%		As_2O_3	5%		
Fe	0.2%		$CaCO_3$	1.4%		
Cu	0.3%		Na_2CO_3	3%		
Zn	13%		KCl	6%		
Pb	27%		SiO_2	3.8%		
As	ND		S	3%		
Cl	1-5%					
Bi	ND					
Te	0.08%					
Ag	ND					
Ni	ND					
I	<1%					
Al	<1%					
In	<1%					
Cd	16%					
Br	3%					

ALL ELEMENTS ATOMIC NUMBER 13 OR GREATER NOT LISTED WERE NOT DETECTED

LABORATORY ANALYTICAL REPORT

X-RAY DIFFRACTION

To: EAST HELENA **Material:** BAGHOUSE DUST

Date Analyzed: 19-DEC-1997 **Project No:** 3119 **Lab No.** L973003

	Compounds Identified			Level of Crystalinity		
Sample Description	**Samp Lab No.**	**Formula**	**Chemical or Mineral Name**	**High**	**Med**	**Low**
DUST	-1	ZnO	ZINCITE		+	
		PbBr(OH)	LEAD BROMIDE HYDROXIDE		+	
		CdOHCl	CADMIUM CHLORIDE HYDROXIDE		+	
		$Cd(ClO_4)_2$	CADMIUM CHLORATE		?	
		Na_2CO_3	SODIUM CARBONATE		?	

?= MAY BE PRESENT